

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (Cancel)

18. (new) A process for the preparation of a pharmaceutical composition comprising a discontinuous water-immiscible phase in a continuous aqueous phase, said process comprising the step of :

mixing an aqueous liquid and a water-immiscible material using a mixing apparatus having a non-porous mixing surface, wherein said non-porous mixing surface is:

(a) repellent to the discontinuous water-immiscible phase and/or attractive to the continuous aqueous phase; and

(b) more hydrophilic after steam sterilisation than stainless steel.

19. (new) The process of claim 18, wherein the water-immiscible material comprises a vesicle membrane forming agent.

20. (new) The process of claim 18, wherein the water-immiscible material further comprises a gas precursor.

21. (new) The process of claim 18, wherein the discontinuous water-immiscible material comprises lipid-coated vesicles.

22. (new) The process of claim 18, further comprising the step of forming an ultrasound, X-ray or MR diagnostic imaging contrast medium from the mixture of said mixing step.

23. (new) The process of claim 18, wherein the water receding contact angle of said non-porous mixing surface after steam sterilisation is less than 55°.
24. (new) The process of claim 18, wherein the water receding contact angle of said non-porous mixing surface after steam sterilisation is less than 45°.
25. (new) The process of claim 18, wherein the water receding contact angle of said non-porous mixing surface after steam sterilisation is less than 30°.
26. (new) The process of claim 18, wherein the mixing apparatus is a rotor stator.
27. (new) The process of claim 18, wherein the mixing apparatus is selected from homogenizers, sonicators, cap mixers, shakers, paddle mixers, static mixers, expansion nozzles and extruders.
28. (new) The process of claim 18, wherein said non-porous mixing surface comprises gold.
29. (new) The process of claim 18, wherein said non-porous mixing surface comprises one of a ceramic surface and a plasma oven treated surface.
30. (new) A process as claimed in claim 18, further comprising the step of subjecting said discontinuous water-immiscible phase and said continuous aqueous phase to shear forces exerted by first and second surfaces moving relative to each other at a speed of at least 20 m/s, wherein said first and second surfaces are gold plated.
31. (new) A process as claimed in claim 30, wherein said subjecting step further comprises moving said first and second surfaces relative to each other at a speed of at least 30 m/s.

32. (new) A process as claimed in claim 30, wherein said subjecting step further comprises moving said first and second surfaces relative to each other at a speed of up to 60 m/s.

33. (new) A process as claimed in claim 30, further comprising the step of sequentially passing the mixture of said mixing step through a plurality of different zones in which the mixture is subject to shear forces exerted by additional surfaces moving relative to each other, wherein said additional surfaces are gold plated.

34. (new) A process as claimed in claim 33, wherein said sequentially passing step further comprises exerting the shear forces using one rotor moving relative to at least one stator.

35. (new) A process as claimed in claim 34, wherein said sequentially passing step further comprises exerting the shear forces using at least two rotors each moving relative to a corresponding stator.

36. (new) A process as claimed in claim 30, wherein said moving gold plated surfaces are separated by from 100-500 μm .

37. (new) A process as claimed in claim 30, wherein said surfaces are gold plated to a thickness of 0.5-50 μm .

38. (new) A process as claimed in claim 30, wherein said surfaces are gold plated to a thickness of 2-30 μm .

39. (new) A process as claimed in claim 30, wherein said surfaces are gold plated to a thickness of 3 μm .